

SUMMARY OF CLAIM AMENDMENTS AND RESPONSE TO OFFICE ACTION

STATUS:

Claims 1- 66 attached, less 21 canceled = 45 claims are pending in the application

Claims 3-5, 7, 9-11, 14-16, 18-23, 25-32, and 48-49 were withdrawn by office action pending a generic claim.

Claims 50-59 were rejected by the Office Action of 04/04/2006 under 35 USC 112.

Claims 1-2, 8, 12, 13, 33-34, 44-45, 47, and 50-59 were rejected by the Office Action of 04/04/2006 under 35 USC 103(a)

Claims 60-66 are new.

Independent Claims 1, 12, 19, 33, 34, 44, and 48 have been amended to overcome the examiner's objections and to clearly distinguish the present invention as not anticipated by nor obvious from the prior art. Dependent Claims 5, 7-9, 14-16, 20-23, 45, 50, 52, also have been amended to overcome objections and to agree with the terminology of the amended independent claims. Of the above, Claims 5, 7-9, 15-16, 19-23, 44-45, 52, and new claims 60-61 refer to embodiments presently withdrawn pending a linking claim.

Claims 60-66 have been added to replace canceled claims. In general, the amended claims now recite the scope of the invention in sufficient detail to clearly read over the prior art and to be unobvious from such, as discussed in part during the telephone interview of June 2, 2006.

Applicant requests that, in addition to the below, examiner refer to the arguments put forth in the prior response of October 2, 2005 with regard to the claims as now amended. That analysis includes an explanation of the distinctive features of the invention, including aspects now included in the amended claims, which clearly distinguish the invention over prior art.

Please note that specification references below refer to page numbers in the Amended Specification enclosed herewith.

DISCUSSION and RESPONSE:

Amended independent Claims 1, 12, 33, 34, and 48 now more completely recite the unique aspects of the invention wherein each island includes a plurality of undercut segments separated from one another by a stem segment, and vice versa, so as to effect the islands' segmented edges (p. 13, paragraph 2, starting line 6; device Figs. 1-5, 7 & 10), and in which edges of the undercut segments are oblique to edges of adjacent islands (and the axis of engagement) (page 13, paragraph 1, beginning line 13; device Figs.). Also the amended claims recite that the fenestrated base includes sectors which divide and separate adjacent fenestrations and connect with stem segments (device Figs.). Furthermore, the amended claims more clearly recite the unique aspects of the tapered apertures, which are defined by sidewalls and undersides of adjacent islands between the plane of the basal surface and undersides, which is inherent to the operating principle of the device. Therefore, the invention as claimed is now definite, and can not be anticipated and is not obvious over the applicant's prior patent US 5983467 (Duffy 1), nor that of Allan US 5640744 as per at least the following aspects:

1. Segmented Islands: The invention as now claimed includes islands with segmented edges (as defined on page 14, paragraph 2) resultant from the interspersal of pluralities of undercut segments between stem segments, and vice versa, with edges which are oblique to those of adjacent islands, and with undercut segments extending away from sidewalls of the stem segments. Therefore the amended claims clearly read over the prior art and are not obvious from such. It is apparent from examination of the figures and specification in each case that neither Duffy 1 nor Allan includes islands with such obliquely oriented edges which can be said to be segmented in the manner claimed, nor do either suggest such an aspect. Duffy 1's islands typically include undercut segments having a continuous edge. In his Fig. 8, in which the notch 16 on one side of the island top surface might be called a "segmentation", the notch is a feature of design which clearly does not divide adjacent undercut segments. Furthermore, the invention as claimed reads over Duffy 1 in that the latter's islands typically have only a singular continuing edge which in some instances (i.e. Figs. 1, 2, 7, 8) may be coincident, as a

matter of design, with a stem segment but which do not constitute the relationship taught in the present invention wherein stem segments actually separate distinct undercut segments while also providing the essential structural connection to the fenestrated base. Although Allan's Figs. 11 and 39 may at first appear to illustrate "islands" with pluralities of such elements, both the configuration and operating principle of the present invention clearly reads over any aspect of Allan which might be inferred from these figures. Allan's Fig. 11, apparently a cross section of Figs. 8 and 9, clearly includes edges which are necessarily parallel to one another, rather than oblique, and a sloped stem segment seen in Fig. 8 which is essential to his "ratcheting" principle of operation. Allan's Fig 39, apparently a longitudinal section, also includes parallel edges and other distinctions discussed below.

With regard to embodiments of the type illustrated in the presently withdrawn Fig. 5, it is important to understand the inherent geometric relationship between sidewalls of the stem segments, which are defined as walls of the aperture (page 14, paragraph 2), and "stem segments" which may also have other walls, wherein the near edges of undercut segments (the sectors that effectively return toward the stem segment and which are not part of the effective edge for fastening purposes in that they do not engage with sidewalls) typically extend away from the sidewalls as seen in all device figures. Without this understanding, one might be inclined to view the present Fig. 5 as an exception. However it can be seen that in Fig. 5 the stem segment sidewalls (i.e. aperture walls) are the lateral sides of stem segment 07 rather than its face, and that the island top is therefore effectively segmented in the manner common to other embodiments, in that the undercut segments extend away from sidewalls.

2. Stem Segments: The invention as now claimed includes a plurality of stem segments, effectively continuing from the basal surface to the island top surface, which separate and define the distinct edges of each undercut segment. These stem segments have sidewalls, effectively extending from the plane of the basal surface to undersides of the undercut segments, that define the lateral limits (walls) and the tapered aspect of apertures , each stem segment connecting with a plurality of undercut segments which extend away from

the sidewalls over a corresponding fenestration. The aspect of stem segments with sidewalls now clearly reads over and is nonobvious regarding both Duffy 1 and Allan in several respects. As discussed above, Duffy 1 does not include such stem segments which divide and separate distinct undercut segments in the manner claimed. As distinct over Alan, the sidewalls of the present invention define the lateral limits of apertures for receiving complementary islands between two adjacent islands, whereas it is Allan's "fenestrations" which serve as his receptors, defined by the edges (walls) of the fenestrations, and receiving his "islands" into fenestrations in the base located *behind* a sloped end wall of the island with regard to the axis of engagement. Also, the present invention includes segmented island edges oriented obliquely to the engaging axis, whereas Allan's "islands" are inherently aligned with his engaging axis. Therefore it can be seen that the claimed present stem segments have sidewalls which serve as aperture walls, whereas sidewalls of Allan's stems are distinct from his apertures.

3. Fenestrated base: Another significant aspect of the invention which can now be more clearly distinguished is the relationship between fenestrations, stem segments, and base; wherein the fenestrated base includes fenestrations corresponding perpendicularly at least in part with undersides, which fenestrations are separated by sectors of the base which connect with stem segments. Other sectors of the base may be common to multiple fenestrations and may correspond perpendicularly to at least part of an aperture opening (page 14, paragraph 2). (*It should be noted here that although the device as seen in Figs. 1-7 and 10 typically illustrate areas of the basal surface 15 opposite an aperture opening 12, such a configuration is not essential to the structure or operation of the device; nor is it essential that island tops engage with the basal surface. For instance, in an alternative design within the scope of the invention, the stem segments and connecting base portions of an embodiment similar to Figs. 2 or 4 could be located at the corners of the triangular islands. Although a relatively tight fit with an aperture height approximating the thickness of undercut segments is generally preferred, it is not considered essential in that the device could optionally include deeper apertures (longer stems) for instance, as a matter of design choice. The inherent feature, however, is that the islands effectively interengage within the apertures defined by sidewalls of stem*

segments and undersides in a receptor that is spaced from the basal surface by a distance at least equal to the thickness of the undercut segment so that the tapered tips of islands can slidingly engage without interfering with the base structure. This is particularly important in distinguishing the invention from that of Allan.)

Therefore, the invention clearly can not be considered obvious with regard to the prior art in that Duffy 1 does not include or suggest a fenestrated base with fenestrations as now claimed. Furthermore, the fenestrated base may be clearly differentiated over that of Allan, as can be seen in all device figures, in that the present fenestrated base is part of an overall structural matrix (generally intended to enhance economy) whereas the inherent geometry and operational principle of Allan's device includes fenestrations which are necessarily located in longitudinal alignment with his ridges, and thereby corresponding only with apertures for receiving the corresponding ridges.

4. Apertures: The unique aspects of the presently claimed apertures, with regard to their tapered shape effectively defined by stem segment sidewalls and undersides of undercut segments, their location between the basal surface plane and undersides, and their function of progressively receiving correspondingly tapered islands, as now recited in the claims, clearly distinguished the invention and makes it nonobvious over the prior art. Apertures defined by stem segments which effectively divide undercut segments as well as fenestrations in the base recite unique aspects which can not be anticipated or suggested by Duffy 1. Providing such apertures for progressively slidingly engaging islands between the basal surface plane and undersides represents unique aspects which can not be considered obvious from Allan and which would in fact obviate Allan's operational principle. Furthermore neither Duffy 1 nor Allan contain any suggestion or inference that apertures provided in the manner claimed would be desirable or useful. Fenestrations for sewing, as suggested by the examiner, could be provided in may ways other that that of this invention: however, nothing would suggest to one skilled in the art to provide a fenestrated base in the manner and configuration claimed for such a purpose.

5. Most significantly, it is the inherent synergistic combination and configuration of the

unique aspects of the present invention as now claimed which both differentiate and make it unobvious over the prior art, as well as provide significant advantages. The unique claimed combination of tapered apertures, fenestrated base, and segmented islands with multiple undercuts overhanging fenestrations and separated by stem segments, when viewed as a whole, are clearly not implied or suggested by the prior art, and could not have been obvious to a person having ordinary skill in the art at the time the invention was made. The configuration of island having segmented edges with undercut segments overhanging fenestrations divided by stem segments, considered as a whole, clearly reads over and is not suggested by the continuous edges and inherent solid base of Duffy 1. These aspects as well as the oblique orientation of edges; tapered apertures defined by sidewalls, undersides and plane of basal surface; and present operating principle, considered as a whole, are clearly not implied or suggested by the longitudinally aligned fenestrations of Allan which serve as apertures for his operating principle.

Therefore, consideration as a whole of the unique aspects of the present invention, as claimed individually and as configured in the manner recited in the claims, distinguish the invention as not anticipated by nor obvious from the prior art.

BRIEF SUMMARY REGARDING SPECIFIC AMENDED AND NEW CLAIMS:

Amended Claim 1 recites the aspects of the invention which are applicable to all embodiment types which are not obvious from the prior art, as discussed above.

Amended Claim 5 recites the aspects of embodiments of the type illustrated in Fig. 3, presently withdrawn, with segmented islands having a generally hexagonal shape. The amendment is intended to clarify the intent of the claim and to conform with the revised language of Claim 1.

Amended Claim 7, referring to embodiments of the type illustrated in Fig. 5, presently withdrawn, is amended to recite the language of Claim 1 to which it is dependent.

Amended Claim 8, referring to embodiments with conjoined stem segments, as per paragraph 1 page 15 and Figs.1, 3, 7, 8 &10, is amended to conform with the language of Claim 1 specifically with regard to the terms stem segment and sidewalls.

Claim 9 is amended to correct the intended reference claim.

Amended independent Claim 12 now more fully recites the aspects of the invention as discussed above with regard to Claim 1 regarding the interrelationship of stem segments, undercut segments, fenestrations, and apertures as taught throughout the specification, and discussed more fully above.

Claims 14-16 (15-16 presently withdrawn) are amended to correctly recite the aspect of aperture openings as taught in the specification page 14 paragraph 1.

Amended Claim 19 recites the aspects of a double sided embodiment of the device, presently withdrawn, such as that seen in Fig. 7 including the relationships of stem segments and undercut segments as discussed above with regard to Claim 1.

Claims 20-23 (22-23 presently withdrawn) are amended to more clearly recite the relationship of islands and apertures with regard to double sided devices of different geometries.

Amended Claim 33 now more fully recites the aspects of the invention as discussed above under Claim 1 with regard to embodiments of the types illustrated in Figs.1-4, 7, and 10.

Amended Claim 34 now recites the aspects of the invention in alternative language with regard to all device figures.

Amended Claim 44 now more fully recites the aspects of a product, such as that schematically illustrated in Fig. 10, incorporating the aspects of the invention as

discussed above and thereby further limiting dependent claims 45-47, and 60-61.

Claim 45 is amended to properly recite its intended reference.

Amended Claim 48 now more fully recites the method of using the subject device by including unique limitations not obvious from the prior art.

Claim 49 has been canceled in order to overcome the examiner's objection as to limiting Claim 48 by including a method of making.

Claims 50 and 52 have been amended per the examiners objections in order to recite an important aspect of the invention without referring to an apparatus for making.

Claims 53-59 have been canceled in regard to the examiner's objections.

New Claims 60 and 61 recite optional aspects of the product of Claim 44 as per the paragraph starting at the bottom of page 20 of the specification.

New Claims 62-66 (replacing canceled claims) recite several optional material choices from which the invention can be manufactured as noted throughout the specification and include the limitations of Claim 1.

Regarding Claim 46:

Claim 46 was rejected under 35 USC 103 (a) with regard to Duffy 1, Allan, and Sink US 5943705, in that Sink provides a strap which includes an elastic portion. In that the independent claim 45 has now been amended so that the invention as claimed is not obvious with regard to Duffy in view of Allan, there is no suggestion or implication in Sink that would suggest combination of his elastic portion with the limits of the present invention.

**RESCISSON OF APPLICANT'S PRIOR REQUEST TO AMEND
SPECIFICATION AND DRAWINGS:**

Applicant's Response dated August 2, 2005 included a request to amend the specification and drawings by eliminating Figs. 6 and 6A and associated reference (Chevron-like embodiment). Upon further consideration, and after telephone consultation with examiner on June 9, 2006, applicant hereby requests rescission of that request. The request to delete page 1, paragraph 1 (re priority) remains. Therefore, a revised Clean Copy of the specification as per applicant's present request, and a Marked Up copy with the previously rescinded section underlined to indicate re-addition are enclosed.

Applicant hereby certifies that the enclosed copies contain no new matter. It is unknown to the applicant whether the previous request has been incorporated in the record.

APPLICANT'S SUMMARY OF TELEPHONE INTERVIEW 06/02/2006 2PM:

Applicant: Leonard Duffy Examiner: James R. Brittain

Claims faxed for discussion in draft form: 1, 12, 33, 34, 44, 48/49, 50-59

Claims discussed in substance: 1, 44-46

Prior art discussed: Duffy US5983467 , Allan US5640744

Regarding Claim 1: Mr. Brittain explained that his rejection focused on the comparison of applicant's selected species illustrated in Figs. 4/ 4A with Duffy '467 Figs. 7 and 8 and Allan's Fig 21. He pointed out that the Claim 1 as drafted was still too broad in that it could also recite the proposed combination. He went on to suggest that the applicant look at the specific differences regarding the present invention's aspects of a segmented island having multiple undercut segments which are separated by stems, effecting a gap in the island's edge. The examiner also pointed out that near edges of the undercut segments extend away from the stems.

The examiner also pointed out that Allan's Figs. 10 and 11 should be looked at closely to determine differences from applicant's claim. Also, the directional orientation of the components should be considered.

Regarding Claim 44: the examiner noted that all limitations of the device must be included in the product claim.

Regarding Claims 48-49, also 50-59, briefly discussed: The examiner explained why an apparatus for making could not be included in a device claim.

Please note: In composing the attached amendments and response, the applicant has attempted to use the specific language as defined by the specification which for instance differentiates between the terms stem and stem segment, undercut segment and

underside, segmented island edge, and related terminology. Therefore the terminology used in the present amendment may differ from the terms used in the telephone discussion. Furthermore, in reexamining the issue, applicant has also limited the claims by inclusion of other factors related to the specific geometry such as the relationship of base portions to fenestrations, stem segments and to aperture openings.

CONCLUSION:

In conclusion, the Specification and Claims have now been amended to overcome the Examiner's objections, and the Amended Claims are now distinct and in proper form and read over the prior art. Therefore applicant submits that the Specifications and Claims as amended herewith now place the application in proper form and in condition for allowance, which is hereby requested.

CONDITIONAL REQUEST FOR CONSTRUCTIVE ASSISTANCE

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. 2173.02 and 707.07(j).

Applicant's Signature on page 1.

END

enclosures